



PCT10

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/030,884

DATE: 06/21/2002

TIME: 11:44:56

Input Set : A:\BB1355 USPCT Corrected Seq List.txt

Output Set: N:\CRF3\06212002\J030884.raw

3 <110> APPLICANT: Emil M. Orozco, Jr.  
4 Zude Weng  
5 Wesley B. Bruce  
6 Rebecca E. Cahoon  
7 Yong Tao  
9 <120> TITLE OF INVENTION: Auxin Transport Proteins  
11 <130> FILE REFERENCE: BB1355  
13 <140> CURRENT APPLICATION NUMBER: 10/030,884  
C--> 14 <141> CURRENT FILING DATE: 2002-05-28  
16 <150> PRIOR APPLICATION NUMBER: 60/133,040  
17 <151> PRIOR FILING DATE: 1999-05-07  
19 <160> NUMBER OF SEQ ID NOS: 48  
21 <170> SOFTWARE: Microsoft Office 97  
23 <210> SEQ ID NO: 1  
24 <211> LENGTH: 629  
25 <212> TYPE: DNA  
26 <213> ORGANISM: Zea mays  
28 <220> FEATURE:  
29 <221> NAME/KEY: unsure  
30 <222> LOCATION: (413)  
31 <223> OTHER INFORMATION: n=a,c,g or t  
33 <220> FEATURE:  
34 <221> NAME/KEY: unsure  
35 <222> LOCATION: (466)  
36 <223> OTHER INFORMATION: n=a,c,g or t  
38 <220> FEATURE:  
39 <221> NAME/KEY: unsure  
40 <222> LOCATION: (526)  
41 <223> OTHER INFORMATION: n=a,c,g or t  
43 <220> FEATURE:  
44 <221> NAME/KEY: unsure  
45 <222> LOCATION: (535)  
46 <223> OTHER INFORMATION: n=a,c,g or t  
48 <220> FEATURE:  
49 <221> NAME/KEY: unsure  
50 <222> LOCATION: (549)  
51 <223> OTHER INFORMATION: n=a,c,g or t  
53 <220> FEATURE:  
54 <221> NAME/KEY: unsure  
55 <222> LOCATION: (560)  
56 <223> OTHER INFORMATION: n=a,c,g or t  
58 <220> FEATURE:  
59 <221> NAME/KEY: unsure

ENTERED

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Input Set : A:\BB1355 USPCT Corrected Seq List.txt

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60 <222> LOCATION: (601)..(602)..(603)  
61 <223> OTHER INFORMATION: n=a,c,g or t  
63 <220> FEATURE:  
64 <221> NAME/KEY: unsure  
65 <222> LOCATION: (628)  
66 <223> OTHER INFORMATION: n=a,c,g or t  
68 <400> SEQUENCE: 1  
69 gctaaaattg ctaatatattc tccaaaggaa acaagatata taatgtttat cttcagacag 60  
70 catgaagcaa gataagatat atatatatcg attcttcgac cgcagtcagc atgtttgaca 120  
71 gatcgcaatg cctcactcac tgaatcactg aatagatcgc tgcgctcgga gctatctttc 180  
72 gtttccctac ctaagctaag agtaatcgct aatgctcatc agaaatttca tgtggggccg 240  
73 atacaccaca gcatggcgcc ttccgcacgc tgaagaagcg agcgagagag gctcacagcc 300  
74 ccagcaagat gtagtagacc aggggtgatgg gcagagcgat gagcatcccg aagatcacgg 360  
W--> 75 ctgtgctcag gatgtcggga tgaacgccgt actccttggg cgaacacgaa cgngcacgat 420  
W--> 76 cccctgaggc agagcagcct ggacgatggc gatgtggagg aggagncgcg cagaccgacg 480  
W--> 77 gcgatggaag cggcgcccat gaccgcgggg gctgcgaaga aaccgnacgc ccatngcgat 540  
W--> 78 ggccgccanc ttgttcccg n aagcgatgat cctcgggtgc agcgccatga acaggcctag 600  
W--> 79 nnngaacatg gccatccgag accgcgtnc 629  
81 <210> SEQ ID NO: 2  
82 <211> LENGTH: 171  
83 <212> TYPE: PRT  
84 <213> ORGANISM: Zea mays  
86 <400> SEQUENCE: 2  
87 Pro Leu Ala Ile Pro Pro Ala Gly Val Met Thr Arg Leu Ile Leu Ile  
88 1 5 10 15  
a<sup>1</sup> 90 Met Val Trp Arg Lys Leu Ile Arg Asn Pro Asn Thr Tyr Ser Ser Leu  
91 20 25 30  
93 Ile Gly Val Val Trp Ser Leu Val Ser Tyr Arg Trp Gly Ile Glu Met  
94 35 40 45  
96 Pro Ala Ile Ile Ala Arg Ser Ile Ser Ile Leu Ser Asp Ala Gly Leu  
97 50 55 60  
99 Gly Met Ala Met Phe Ser Leu Gly Leu Phe Met Ala Leu Gln Pro Arg  
100 65 70 75 80  
102 Ile Ile Ala Cys Gly Asn Lys Leu Ala Ala Ile Ala Met Gly Val Arg  
103 85 90 95  
105 Phe Val Ala Gly Pro Ala Val Met Ala Ala Ala Ser Ile Ala Val Gly  
106 100 105 110  
108 Leu Arg Gly Val Leu Leu His Ile Ala Ile Val Gln Ala Ala Leu Pro  
109 115 120 125  
111 Gln Gly Ile Val Pro Phe Val Phe Ala Lys Glu Tyr Gly Val His Pro  
112 130 135 140  
114 Asp Ile Leu Ser Thr Ala Val Ile Phe Gly Met Leu Ile Ala Leu Pro  
115 145 150 155 160  
117 Ile Thr Leu Val Tyr Tyr Ile Leu Leu Gly Leu  
118 165 170  
120 <210> SEQ ID NO: 3  
121 <211> LENGTH: 1088  
122 <212> TYPE: DNA  
123 <213> ORGANISM: Zea mays

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125 &lt;220&gt; FEATURE:

126 &lt;221&gt; NAME/KEY: unsure

127 &lt;222&gt; LOCATION: (110)

128 &lt;223&gt; OTHER INFORMATION: n=a,c,g or t

130 &lt;400&gt; SEQUENCE: 3

W--> 131 gggacgggaa agccgcggcg gcggggcgggg accccagcac ggtggccgcg ccgacggcga 60  
 132 tgccgccgac gagcgtcatg acccggtga tcctgatcat ggtgtggcgn caactcatcc 120  
 133 gcaaccctaaa cacctactcc agcctcatcg gcgtcatctg gtcgctcgtc tgcttcagggt 180  
 134 ggaacttcca gatgccggcc atcgtcctgc agtccatctc catcctgtcg gacgcggggc 240  
 135 tcgggatggc catgttcagt ctggggctgt tcatggcgct gcagccgcg atcatcgct 300  
 136 gcgggaacaa ggtggcgacg ttccgcatgg cggtgcgctt cctgaccggt ccggcgggta 360  
 137 tggcggccgc gtccttcgcc gtgggcctcc gcggcacgct tctgcacgtc gccatcgctc 420  
 138 aggcagctct gcctcagggc attgtccctc tcgtcttcgc aaaggagtag aacgtgcacc 480  
 139 ctgacattct cagcaccgca gtcatttttg gcatgctcat cgccctgccg atcacgctcg 540  
 140 tctactacat cctgctcggc ctgtgaccga cccgtgggtg atggcaatgg catgccccgc 600  
 141 attgctgtaa ctgtaaagac cgctgctgcc actttccgtt caagggaggc aagtgaggag 660  
 142 actgtctgct acgacatttg cttggcgctt caaaaatgag tggcttggtt ctctctctct 720  
 143 tctatctatt ttttattttt tctctagaag taggtgtgag gattgtatgg atggaaagtg 780  
 144 tgggaggtgg acaagtcgcg gtagctaggt aggacgacaa tggtagaggc aaacggacca 840  
 145 aaaggaggtg caagtacaaa agcttgaagg gaacaggaga tccagtttaa gcacgtcacg 900  
 146 ggatgggttg gatatttcaa cgggttcagg gtattttggt tggctgcgct gaccgatgta 960  
 147 aaatcagcgc gccattgtga caggagatcg atcttgcttg agataaacag ctcacctccg 1020  
 148 gagtttgatg gcttgagata agggctcaac tcaaaaataga cagaaatata taccgtatgt 1080  
 149 gtcactga 1088

151 &lt;210&gt; SEQ ID NO: 4

152 &lt;211&gt; LENGTH: 187

153 &lt;212&gt; TYPE: PRT

154 &lt;213&gt; ORGANISM: Zea mays

156 &lt;400&gt; SEQUENCE: 4

157 Asp Gly Lys Ala Ala Ala Ala Gly Gly Asp Pro Ser Thr Val Ala Ala  
 158 1 5 10 15  
 160 Pro Thr Ala Met Pro Pro Thr Ser Val Met Thr Arg Leu Ile Leu Ile  
 161 20 25 30  
 163 Met Val Trp Arg Gln Leu Ile Arg Asn Pro Asn Thr Tyr Ser Ser Leu  
 164 35 40 45  
 166 Ile Gly Val Ile Trp Ser Leu Val Cys Phe Arg Trp Asn Phe Gln Met  
 167 50 55 60  
 169 Pro Ala Ile Val Leu Gln Ser Ile Ser Ile Leu Ser Asp Ala Gly Leu  
 170 65 70 75 80  
 172 Gly Met Ala Met Phe Ser Leu Gly Leu Phe Met Ala Leu Gln Pro Arg  
 173 85 90 95  
 175 Ile Ile Ala Cys Gly Asn Lys Val Ala Thr Phe Ala Met Ala Val Arg  
 176 100 105 110  
 178 Phe Leu Thr Gly Pro Ala Val Met Ala Ala Ala Ser Phe Ala Val Gly  
 179 115 120 125  
 181 Leu Arg Gly Thr Leu Leu His Val Ala Ile Val Gln Ala Ala Leu Pro  
 182 130 135 140  
 184 Gln Gly Ile Val Pro Phe Val Phe Ala Lys Glu Tyr Asn Val His Pro  
 185 145 150 155 160

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187 Asp Ile Leu Ser Thr Ala Val Ile Phe Gly Met Leu Ile Ala Leu Pro  
188 165 170 175  
190 Ile Thr Leu Val Tyr Tyr Ile Leu Leu Gly Leu  
191 180 185

193 <210> SEQ ID NO: 5

194 <211> LENGTH: 253

195 <212> TYPE: DNA

196 <213> ORGANISM: Zea mays

198 <220> FEATURE:

199 <221> NAME/KEY: unsure

200 <222> LOCATION: (150)

201 <223> OTHER INFORMATION: n=a,c,g or t

203 <220> FEATURE:

204 <221> NAME/KEY: unsure

205 <222> LOCATION: (164)

206 <223> OTHER INFORMATION: n=a,c,g or t

208 <220> FEATURE:

209 <221> NAME/KEY: unsure

210 <222> LOCATION: (194)

211 <223> OTHER INFORMATION: n=a,c,g or t

213 <220> FEATURE:

214 <221> NAME/KEY: unsure

215 <222> LOCATION: (229)

216 <223> OTHER INFORMATION: n=a,c,g or t

218 <220> FEATURE:

219 <221> NAME/KEY: unsure

220 <222> LOCATION: (237)

221 <223> OTHER INFORMATION: n=a,c,g or t

223 <220> FEATURE:

224 <221> NAME/KEY: unsure

225 <222> LOCATION: (240)

226 <223> OTHER INFORMATION: n=a,c,g or t

228 <400> SEQUENCE: 5

229 gccccacccc actcatcaca ctctcccacc gcacctcgcc gccgcggggc accgcgccat 60

230 aaagtgcgtt cccggcctgc acggacgtcg aggagcagct cgcaagtgtt tcttggtgcg 120

W--> 231 tcgatcggca agatgatcac cggcacggan cttctaccac gtcttgacgg ccatggtgcc 180

W--> 232 gttgtacgtt gccntgatcc tggcgtacgg atccgtcagg tgggtggcgna tcttcangcn 240

233 gggaccagtg ctc 253

235 <210> SEQ ID NO: 6

236 <211> LENGTH: 31

237 <212> TYPE: PRT

238 <213> ORGANISM: Zea mays

240 <220> FEATURE:

241 <221> NAME/KEY: UNSURE

242 <222> LOCATION: (3)

243 <223> OTHER INFORMATION: Xaa = ANY AMINO ACID

245 <220> FEATURE:

246 <221> NAME/KEY: UNSURE

247 <222> LOCATION: (8)

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248 <223> OTHER INFORMATION: Xaa = ANY AMINO ACID  
250 <220> FEATURE:  
251 <221> NAME/KEY: UNSURE  
252 <222> LOCATION: (18)  
253 <223> OTHER INFORMATION: Xaa = ANY AMINO ACID  
255 <400> SEQUENCE: 6

W--> 256 Ala Arg Xaa Phe Tyr His Val Xaa Thr Ala Met Val Pro Leu Tyr Val  
257 1 5 10 15

W--> 259 Ala Xaa Ile Leu Ala Tyr Gly Ser Val Arg Trp Trp Arg Ile Phe  
260 20 25 30

262 <210> SEQ ID NO: 7  
263 <211> LENGTH: 624  
264 <212> TYPE: DNA  
265 <213> ORGANISM: Zea mays  
267 <220> FEATURE:  
268 <221> NAME/KEY: unsure  
269 <222> LOCATION: (48)..(49)  
270 <223> OTHER INFORMATION: n=a,c,g or t  
272 <220> FEATURE:  
273 <221> NAME/KEY: unsure  
274 <222> LOCATION: (51)..(52)  
275 <223> OTHER INFORMATION: n=a,c,g or t  
277 <220> FEATURE:  
278 <221> NAME/KEY: unsure  
279 <222> LOCATION: (99)  
280 <223> OTHER INFORMATION: n=a,c,g or t  
282 <220> FEATURE:  
283 <221> NAME/KEY: unsure  
284 <222> LOCATION: (102)..(103)  
285 <223> OTHER INFORMATION: n=a,c,g or t  
287 <220> FEATURE:  
288 <221> NAME/KEY: unsure  
289 <222> LOCATION: (107)..(108)  
290 <223> OTHER INFORMATION: n=a,c,g or t  
292 <220> FEATURE:  
293 <221> NAME/KEY: unsure  
294 <222> LOCATION: (112)  
295 <223> OTHER INFORMATION: n=a,c,g or t  
297 <220> FEATURE:  
298 <221> NAME/KEY: unsure  
299 <222> LOCATION: (114)  
300 <223> OTHER INFORMATION: n=a,c,g or t  
302 <220> FEATURE:  
303 <221> NAME/KEY: unsure  
304 <222> LOCATION: (116)  
305 <223> OTHER INFORMATION: n=a,c,g or t  
307 <220> FEATURE:  
308 <221> NAME/KEY: unsure  
309 <222> LOCATION: (118)

RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/10/030,884

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TIME: 11:44:57

Input Set : A:\BB1355 USPCT Corrected Seq List.txt  
Output Set: N:\CRF3\06212002\J030884.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; N Pos. 413,466,526,535,549,560,601,602,603,628  
Seq#:3; N Pos. 110  
Seq#:5; N Pos. 150,164,194,229,237,240  
Seq#:6; Xaa Pos. 3,8,18  
Seq#:7; N Pos. 48,49,51,52,99,102,103,107,108,112,114,116,118,129,137,389  
Seq#:7; N Pos. 444,456,490,555,622  
Seq#:8; Xaa Pos. 46,50,61  
Seq#:11; N Pos. 126,192,205,237,242,244,255,258,263,265,287,430,449,455,488  
Seq#:11; N Pos. 490  
Seq#:12; Xaa Pos. 10,14,25,27,31,32,33,34,89,91,96,98,109,110  
Seq#:15; N Pos. 42,374,412,415,431,443,463,475,482,511,514,519,521,530,535  
Seq#:15; N Pos. 543  
Seq#:16; Xaa Pos. 108,109  
Seq#:23; N Pos. 530  
Seq#:24; Xaa Pos. 33,78  
Seq#:28; Xaa Pos. 38  
Seq#:31; N Pos. 237,250,347  
Seq#:32; Xaa Pos. 25,32,64  
Seq#:35; N Pos. 22,46,58,61,91,98,101,122,177,201,297,300,301,317,333,336  
Seq#:35; N Pos. 347,360,367,389,406,435,441  
Seq#:36; Xaa Pos. 10,12,13,20,38,69,78,79,80,85  
Seq#:39; N Pos. 366,380,390,418,421,434